

REMARKS

Claims 1-20 are pending in this application. Claims 1-7 and 11-17 are rejected, claims 8-10 and 18 are withdrawn, and claims 19 and 20 are new. Claims 1, 2, and 12 are currently amended, and such amendments are fully supported by the specification and drawings. For at least the reasons set forth below, Applicants assert that all claims are in condition for allowance.

Election Requirement

In a telephone interview on February 3, 2005, Applicants provisionally elected group I, claims 1-8 and 11-18, responsive to Examiner's election requirement. In accordance with Examiner's additional request in the Office Action, Applicants hereby affirm that election.

Specification Objection

The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. Examiner asserted that the term "block-coiled" in claim 12 is not included in the specification. Claim 12 has been amended and no longer recites this term. Accordingly, this objection is now moot.

Drawings Objection

The drawings were objected to for failure to show every feature of the invention specified in the claims. Examiner asserted that the "flexible force transferring means being a cylindrical coil spring which is block-coiled in a region in which the coil spring is coupled to the drive mechanism" was not shown. Amended claim 12 no longer recites this phrase. Accordingly, this objection is now moot.

Claim Objection

Claim 1 was objected to because the term "resets" in line 9, is allegedly not clear and precise. Claim 1 has been amended and no longer recites this term. Accordingly, this objection is now moot.

Rejection under 35 U.S.C. § 112

Claims 1 and 16 were rejected since it is allegedly unclear whether the claim limitation of “a restoring means” (claim 1), “a flexible force transferring means” (claim 16) and “locking means” (claim 16) fall within the scope of 35 U.S.C. § 112, sixth paragraph. Applicants intend to invoke 35 U.S.C. § 112, sixth paragraph, with these limitations and assert that “even though the phrase ‘means for’ ... is not used, the claim limitation[s are] written as a function to be performed and [do] not recite sufficient structure, material, or acts which would preclude application of 35 U.S.C. 112, sixth paragraph.” MPEP § 2181. Applicants respectfully request withdrawal of the 35 U.S.C. § 112 rejections.

Specifically, the limitation “a restoring means” is clearly followed by a function to be performed (“applies a restoring force to said drive mechanism...”) and is not followed by structure. Similarly, the limitation “a flexible force transferring means” is clearly followed by a function to be performed (“transfers a drive force of a rotatable drive wheel...”) and is not accompanied by structure except for the term “flexible.” The limitation “a locking means” is also clearly followed by a function to be performed (“locks the drive wheel...”) and is not followed by structure.

Claim 1 was further rejected since it is allegedly unclear whether the “restoring means is for applying a restoring force to the drive mechanism and the drive mechanism is for delivering liquid or the function of the restoring means includes ‘for delivering liquid from the container.’” Claim 1 as amended recites “said restoring means applies a restoring force to said drive mechanism and actuates it for delivering liquid from the container.” Accordingly, it is clear that the restoring means “applies a restoring force to said drive mechanism” and that the restoring means “actuates [the drive mechanism] for delivering liquid from the container.” Applicants respectfully request withdrawal of this 35 U.S.C. § 112 rejection.

Rejection under 35 U.S.C. § 102

Claims 1-7, 11, 13-14 and 16 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sealfon (US 5,261,882). As set forth in more detail below, the reference fails to describe every element of every claim as required by MPEP § 2131, and therefore the rejection is

unsupported by the art. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Independent Claims 1 and 16

Claim 1 recites “a drive mechanism which is coupled to said flexible force transferring means to axially advance the piston for delivering the liquid.” In contrast, spindle 68 in the Sealfon reference is clearly not coupled to the spheres 80/82 to advance a piston as claimed; spindle 68 does not “drive” or otherwise advance spheres 80, which are attached to piston head 26. Fig. 8. Rather, spindle 68 of Sealfon is a passive element, not a drive mechanism, and spheres 80/82 are driven exclusively by their direct connection to negator spring 28. Col. 4, lines 53-59 (“the urgency produced by the negator spring 28 ... results in the interconnected spheres 82 ... in effectively urging the piston head 26 through a power stroke along the axial length of the syringe barrel 18.”). Sealfon fails to teach a drive mechanism “to axially advance the piston for delivering the liquid” as claimed.

Independent claim 16 recites “a restoring force of a spring is applied to the drive wheel to move the piston.” As described above, Sealfon teaches instead that it is the restoring force of the negator spring 28 applied directly to spheres 82 that moves the piston, not the force applied to spindle 68. The force of the negator spring 28 that is applied to spindle 68 merely guides or tracks spheres 82, but it does not drive or “move the piston” as claimed. Col. 5, lines 4-5 (“The spindle, generally designated 68, about which the flexible piston rod or interconnected spheres 82 track...”).

For at least the foregoing reasons, claims 1-7, 11, 13-14 and 16 are in condition for allowance.

Dependent Claims 19 and 20

New claim 19 recites the restoring means being “adjacently coupled to said drive mechanism.” The Sealfon reference fails to teach this limitation. In contrast, the negator spring 28 of Sealfon is not adjacent to spindle 68; the negator spring 28 is spaced away from spindle 68 by spheres 82. *See* Fig. 8. Specifically, the negator spring 28 is not adjacently coupled to spindle

68, but rather it is attached to the spindle whereby first “the negator spring [28] end 88 is connected by screw 90 into a threaded opening 92 in a distal located sphere 80,” col. 4, lines 38-41, and then “screw 90 is threadably tightened in the tapped hole ... of the spindle assembly 68,” col. 5, lines 33-35; Fig. 8.

New claim 20 recites the restoring means being “a spiral spring with a radially outer end, said radially outer end being coupled to an inner surface of said drive mechanism.” As shown in Figure 8, negator spring 28 is clearly coupled to an outer surface of spindle 68. Col. 5, lines 33-35 (“Screw 90 is threadably tightened in the tapped hole 127 of rim 108 of the spindle assembly 68.”).

Rejections under 35 U.S.C. § 103

Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sealfon in view of Updike et al. (US 4,568,335). Neither Sealfon nor Updike, nor the combination thereof, teach or suggest all of the limitations of claim 17. Claim 17 is allowable as being dependent from claim 16 for the reasons set forth above.

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sealfon in view of Douglas et al (US 6,482,186). Neither Sealfon nor Douglas, nor the combination thereof, teach or suggest all of the limitations of claim 12. Claim 12 is allowable as being dependent from claim 1 for the reasons set forth above.

Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sealfon in view of Utterberg et al. (US 5,112,311). Neither Sealfon nor Utterberg, nor the combination thereof, teach or suggest all of the limitations of claim 15. Claim 15 is allowable as being dependent from claim 1 for the reasons set forth above.

Canceled Claims

Claims 8-10 and 18 have been canceled without prejudice. Applicant reserves the right to reintroduce these claims in a divisional application at a later date.

Conclusion

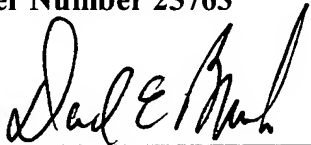
No additional fees should be generated by this response. Nonetheless, the Commissioner is hereby authorized to charge any deficiencies and credit any overpayments associated with this response to Deposit Account No. 04-1420.

This application now stands in allowable form, and reconsideration and allowance are respectfully requested.

Respectfully submitted,

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